

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TAKAHISA HARA, MASAHIRO MATSUMOTO,
NOBUHIRO USUI and SIGEYOSHI MATHUBARA

Appeal No. 1997-2256
Application No. 08/427,706

HEARD: May 16, 2000

Before CALVERT, FRANKFORT, and GONZALES, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 6 through 11, which are all of the claims

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remaining in the application. Claims 1 through 5 have been canceled.

Appellants' invention relates to a process for producing a multilayer molded article comprising a core layer and a skin material laminated thereon. As summarized in their brief (page 5), appellants have more specifically

discovered a method for controlling the tension applied to a skin material during molding so that the occurrence of both breakages and wrinkling in the skin material can be prevented. Specifically, the present invention secures a skin material to a plurality of pre-positioned pins such that during mold closing an appropriate edge portion of the skin material is locally cut by one or more of the pins, thereby allowing additional skin material to slide into the mold at a high tension portion. The introduction of this additional skin material at the high tension portion prevents the skin from breaking. Moreover, because the skin is not universally added to the mold, sufficient tension is maintained in the low tension portions such that wrinkling does not occur. In this way, the tension of the skin material during the mold closing step is controlled by the location of the pins in response to the shape of the molded article whereby breakage and wrinkling are both avoided.

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A copy of representative independent claims 6 and 10,
reproduced from the Appendix to appellants' brief, is attached
to this decision.

The prior art references of record relied upon by the
examiner as evidence of obviousness are:

Masui et al. (Masui '201)	5,223,201	Jun. 29,
1993		
Masui et al. (Masui EP)	333,198	Sep. 20,
1989		

(European Application)

Claims 6 through 11 stand rejected under 35 U.S.C. § 103
as being unpatentable over Masui '201 in view of Masui EP.

Rather than attempt to reiterate the examiner's full
commentary with regard to the above noted rejection and the
conflicting viewpoints advanced by the examiner and appellants
regarding the rejection, we make reference to the examiner's
answer (Paper No. 25, mailed January 22, 1997) for the
reasoning in support of the rejection, and to appellants'
brief (Paper
No. 24, filed October 30, 1996) for the arguments
thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions as set forth by appellants and the examiner. As a result of our review, we will not sustain the examiner's rejection of claims 6 through 11 on appeal under 35 U.S.C. § 103. Our reasoning follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness (see In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993); In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)), which is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art (see In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993)). The conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of

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ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

According to the examiner (answer, page 4), Matsui '201 discloses a process for molding a multilayered article wherein the process includes clamping the edges of a skin material (10) between an upper (3) and lower (4) molding frame; supplying resin (11) between the skin material and one molding surface; and compression molding the materials into a composite product. The examiner makes note that a holding force is applied to the ends or periphery of the skin material and thus achieves a desired tensioning of the skin material at a desired portion. The examiner is also of the view that "the skin material is fixed

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between clamping means that operate independently outside of the mold and move vertically at the outer peripheral frame of the mold."

The examiner does not specifically indicate what is lacking in the teachings of Matsui '201, but relies on Matsui EP as teaching that it is conventional in the art to have a skin material fixing frame that uses pin means (7) which extend through the skin material (3) to support and position the skin material during a molding process. The examiner then concludes that it would have been obvious to one of ordinary skill in the art to support the edges of the skin material when performing the process set forth in Matsui '201 by using pin means as set forth in Matsui EP, "for equivalently achieving the desired positioning."

Appellants point out (brief, page 7) that Matsui '201 teaches that the force applied to hold the skin material (10) during the molding process therein is controlled so that the skin material gradually shifts into the mold as the molding progresses, and therefore that the holding force is not so

great as to permanently hold the skin material and not so light that excessive sliding of the skin material into the mold occurs (Matsui '201, col. 5 line 57 to col. 6 line 6). By contrast, the teachings of Matsui EP are characterized by appellants as providing for permanent fixing of the skin material by the use of pins (7). Given the contrary teachings in Matsui '201 requiring the skin material to be tentatively held so that it can slide into the mold during molding and the teachings in Matsui EP of rigidly holding the skin material via pins (7) that do not allow sliding or movement thereof, appellants conclude that the examiner's proposed combination of the references is driven by improper hindsight, not motivation from the prior art, and is therefore improper (brief, page 10). We agree.

Moreover, like appellants (brief, pages 9 and 11-13), we note that even if the applied prior art were to be combined in the manner urged by the examiner, the resulting process would not be that set forth in appellants' claims on appeal. Nothing in either Matsui '201 or Matsui EP teaches or suggests controlling the tension of the skin material by locally

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CHARLES E. FRANKFORT
Administrative Patent Judge

JOHN F. GONZALES
Administrative Patent Judge

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BIRCH, STEWART, KOLASCH
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FALL CHURCH, VA 22040-0747

Claims

6. A process for producing a multilayer molded article comprising a core layer and a skin material laminated thereon, which process comprises the steps of:

mounting a skin material between a pair of upper and lower molds by fixing an edge portion of said skin material to a plurality of pre-positioned pins provided on a skin material fixing frame;

supplying a thermoplastic resin melt between said skin material and one of said molds;

closing the molds to press and form said resin melt while simultaneously moving said skin material fixing frame along an outer peripheral wall of one of said upper and lower molds, to thereby hold the edge portion of said skin material such that said edge portion of said skin material is locally cut at one or more of said pins according to a shape of the molded article and a tension at any one of said pins during said step of closing; and

cooling said molds and removing said multilayer molded article from the molds.

10. In a process for producing a multilayered molded article which includes the steps of mounting a skin material between upper and lower molds by fixing an edge portion thereof to holding pins, supplying thermoplastic resin melt between said skin material and one of said molds, and closing the molds so as to form a laminated molded article, the improvement which comprises:

controlling the tension of said skin material during said mold closing step by preselecting the location and diameter of the holding pins such that said edge portion is controllably, locally cut by at least one of said pins, thereby appropriately controlling the tension of the skin material and reducing the occurrence of skin wrinkling and breakage in the molded article;

wherein said molded article does not contain the edge portion of the skin material.

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APJ FRANKFORT

APJ CALVERT

APJ GONZALES

REVERSED

Prepared: March 13, 2001